What is claimed is:

A method for providing access within an eye during an occular surgical procedure, comprising the steps of:

providing an entry alignment device that is configured so as to provide an entry aperture in each of the conjunctiva and sclera of the eye and maintaining the entry aperture in each of the conjunctiva and sclera aligned during the surgical procedure; and

inserting the entry alignment device into the eye so as to form the entry apertures.

2. The method according to claim 1, wherein the entry alignment device being provided is sized such that when the entry alignment device is removed from the eye, the entry aperture formed in the conjunctiva and sclera are sealed without the use of sutures.

3. The method according to claim 2, wherein the entry alignment device being provided is sized such that when the entry alignment device is removed from the eye, the entry aperture is self sealing.

4. The method according to claim 2, further comprising the steps of:

providing a surgical instrument having an operable end for insertion through the entry aperture in each of the conjunctiva and sclera, a portion of the operable end having a cross-sectional diameter not greater than 25 gauge; and

inserting the surgical instrument through the entry apertures into the eye.

5. The method according to claim 4, wherein the surgical instrument is selected from the group consisting of a high-speed vitreous cutter, forceps, scissors, pick, light source, laser, fragmentation, diathermy, and aspirator.

6. The method according to claim 2, wherein the entry alignment device is in the form of one of a metal cannula, a polyimide cannula, a wire spreader and a shoe-horn type member.

7. The method according to claim 1, wherein there are a plurality of entry alignment devices being provided and wherein the step of inserting includes inserting each of the plurality of entry alignment devices so as to form a plurality of entry apertures in the conjunctiva and the sclera.

8. The method according to claim 7, further comprising the steps of:

providing a surgical instrument having an operable end for insertion through the entry aperture in each of the conjunctiva and sclera, a portion of the operable end having a cross-sectional diameter not greater than 25 gauge; and

inserting the operable end portion of at least one surgical instrument through one of the plurality of entry apertures.

9. The method according to claim 1, further comprising the steps of:

providing an infusion cannula having an operable end for insertion into the eye, the operable end having a cross-sectional diameter of not more than 25 gauge and being interconnected to an infusion source; and

inserting the cannula operable end through the conjunctiva and sclera.

10. The method according to claim 9, further comprising the step of sealing the apertures in the conjunctiva and sclera formed by the inserted infusion cannula without the use of sutures.

11. The method according to claim 1, wherein the step of inserting includes inserting the entry alignment device into the eye so the entry apertures in the conjunctiva and sclera are at an angle with respect to a normal to the eye.

12. The method according to claim 11, wherein the angle is greater than 45 degrees from the normal.

13. A method for treating a posterior segment of an eye comprising the steps of:

providing a plurality of entry alignment devices that is configured so as to provide an entry aperture in each of the conjunctiva and sclera of the eye and maintaining the entry aperture in each of the conjunctiva and sclera aligned during the surgical procedure;

inserting each of the plurality of entry alignment devices into the eye;

inserting a light source through the entry aperture formed by one of the plurality of entry alignment devices and inserting a high speed vitreous cutting/ aspirating instrument in the other of the plurality of entry alignment devices;

removing vitreous gel using the high speed vitreous cutting/ aspirating instrument; and

implementing a corrective procedure for the retina.

14. The method of claim 13, further comprising the steps of:

inserting an operable portion of an infusion cannula through the conjunctiva and the sclera; and

maintaining the intraocular volume by infusing a fluid through the infusion cannula;

infusing a first gas through the infusion cannula while aspirating vitreous fluid; and

exchanging the infused first gas with a second gas following the step of implementing.

15. The method according to claim 13, wherein the entry alignment device being provided is sized such that when the entry alignment device is removed from the eye, the entry aperture formed in the conjunctiva and sclera are sealed without the use of sutures.

16. The method according to claim 15, wherein the entry alignment device being provided is sized such that when the entry alignment device is removed from the eye, the entry aperture is self sealing.

17. The method according to claim 15, wherein the entry alignment device is in the form of one of a metal cannula, a polyimide cannula, a wire spreader and a chisel point member.

18. The method according to claim 13, further comprising the steps of:

providing an infusion cannula having an operable end for insertion into the eye, the operable end having a cross-sectional diameter of not more than 25 gauge and being interconnected to an infusion source; and

inserting the infusion cannula operable end through the conjunctiva and sclera.

19. The method according to claim 18, further comprising the step of sealing the apertures in the conjunctiva and sclera formed by the inserted infusion cannula without the use of sutures.

20. The method according to claim 13, wherein the step of inserting includes inserting the entry alignment device into the eye so the entry apertures in the conjunctiva and sclera are at an angle with respect to a normal to the eye.

21. The method according to claim 20, wherein the angle is greater than 45 degrees from the normal.

22. The method of claim 14, further comprising the steps of:

infusing a first gas through the infusion cannula while aspirating vitreous fluid; and

exchanging the infused first gas with a second gas following the step of implementing.

23. A high speed vitreous cutting/ aspirating instrument comprising:

an insertion member having a lumen therein and an aperture proximal an end thereof;

wherein the insertion member has a cross-sectional diameter of not more than 25 gauge;

a cutting member moveably disposed within the lumen;

a cutting member driving mechanism being mechanically interconnected to the cutting member that causes the cutting member to move cyclically in an axial direction within the lumen; and

wherein the cutting member driving mechanism is configured so as to drive the cutting member so as make about 1000 cuts per minute past the insertion member aperture.

24. The high speed vitreous cutting/ aspirating instrument according to claim 23, wherein the cutting member driving mechanism is configured so as to drive the cutting member so as make at least 1000 cuts per minute past the insertion member aperture.

25. The high speed vitreous cutting/ aspirating instrument according to claim 23, wherein the cutting member driving mechanism is configured so as to drive the cutting member so as make more than 1000 cuts per minute past the insertion member aperture.

26. The high speed vitreous cutting/ aspirating instrument according to claim 23, wherein the cutting member driving mechanism is configured so as to drive the cutting member so as make between about 1000 and about 1500 cuts per minute past the insertion member aperture.

27. The high speed vitreous cutting/ aspirating instrument according to claim 23, further comprising a suction line being fluidly interconnected to the insertion member lumen, and wherein the suction line is operated so as to develop a vacuum in the lumen of about 400mmHG.

28. The high speed vitreous cutting/ aspirating instrument according to claim 23, further comprising a suction line being fluidly interconnected to the insertion member lumen, and wherein the suction line is operated so as to develop a vacuum in the lumen greater than 400mmHG.

29. A device kit including at least one entry alignment device that is configured for insertion into an eye and so as to provide an entry aperture in each of the conjunctiva and sclera of the eye and to maintain the entry aperture formed in each of the conjunctiva and sclera aligned during a surgical procedure.

30. The device kit of claim 29, wherein the alignment device is sized such that when the entry alignment device is removed from the eye, the entry aperture formed in the sclera is sealed without the use of sutures.

31. The device kit of claim 30, wherein the alignment device is sized such that the entry aperture formed in the sclera is self-sealing.

32. The device kit of claim 29, further comprising at least one surgical instrument having an operable end for insertion through the entry aperture provided in the eye by the entry alignment device, a portion of the operable end having a cross-sectional diameter not greater than 25 gauge.

33. The device kit of claim 32, wherein one of the at least one surgical instrument is a high speed vitreous cutter that is configured and arranged so as to be capable of cutting and aspirating material through the operable end portion having a cross-sectional diameter not greater than 25 gauge.

34. The device kit of claim 33, wherein the high-speed vitreous cutter includes:

an insertion member having a lumen therein and an aperture proximal an end thereof;

wherein the insertion member has a cross-sectional diameter of not more than 25 gauge;

a cutting member moveably disposed within the lumen;

a cutting member driving mechanism being mechanically interconnected to the cutting member that causes the cutting member to move cyclically in an axial direction within the lumen; and

wherein the cutting member driving mechanism is configured so as to drive the cutting member so as make about 1000 cuts per minute past the insertion member aperture.

35. The device kit of claim 29, further comprising an infusion cannula having an insertable end for insertion into the eye, a portion of the insertable end having a cross-sectional diameter of not more than 25 gauge.

36. The device kit of claim 29, wherein the entry alignment device is configured so as to be in the form of one of a metal cannula, a polymide cannula, a wire spreader and a shoe-horn type member.

37. The device of claim 32, wherein the at least one surgical instrument is selected from the group consisting of a forceps, scissors, pick, light source, laser, fragmentation device, diathermy device and aspirator.

38. A forceps comprising:

a first member having a lumen and a fixed sloping end proximal an open end of the lumen;

a second member being disposed in the lumen and being axially moveable therein, the second member having a sloped end; and

wherein the first and second members are arranged so that the fixed sloping end opposes the second member sloped end.

39. The forceps of claim 39, wherein the first member is sized so a cross-sectional diameter thereof is about 25 gauge or less.

40. The forceps of claim 39, further comprising a moving mechanism being mechanically interconnected to the second member so as to selectively move the second member sloped end from a rest position to any number of positions between the fixed sloping end and the rest position so as to grasp material disposed between the fixed sloping end and the second member sloped end.

41. The forceps of claim 38, wherein the fixed sloping end and the second member sloped end are configured such that opposing surfaces thereof are substantially parallel to each other.

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